

Notice of Allowability

Application No.

10/050,810

Examiner

Ly D Pham

Applicant(s)

HIDAKA, HIDE TO

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03 December 2003.
2. ☒ The allowed claim(s) is/are 7-12 and 15-18.
3. ☒ The drawings filed on 18 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |



HUAN HOANG
PRIMARY EXAMINER

DETAILED ACTION

1. Applicant's Amendment filed December 03, 2003 has been entered. Claims 1 – 6, 13, and 14 have been canceled. Claims 7 and 15 have been amended. Claims 19 – 33 have been withdrawn.
2. This application is in condition for allowance, except for the following formal matter.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 19 – 33 are canceled for being drawn to non-elected inventions. Election was made without traverse in the Response to the Restriction Requirement filed in July 29, 2003. Applicant has the right to file divisional applications on the subject matter covered by these claims.

Allowable Subject Matter

4. Claims 7 – 12 and 15 – 18 are allowed.
5. The following is an examiner's statement of reasons for allowance:
The prior arts teach a thin film magnetic memory device, comprising:

a plurality of memory cells for retaining storage data, wherein each of the memory cells includes an access gate selectively turned ON during reading, and a magnetic storage portion connected in series with the access gate having first and second electric resistance depending on storage data, and the magnetic storage portion includes a first magnetic layer having a fixed magnetization direction, a second magnetic layer whose magnetization direction depends on data stored therein, and a first insulating film formed between the first and second magnetic layers, said thin film magnetic memory device further comprising: a data line electrically coupled to the magnetic storage portion of a selected memory cell through a turned-ON of access gate ...; a reference data line providing read reference voltage for comparison with a voltage on the data line; and a plurality of dummy memory cells for producing the read reference voltage.

However, the prior arts fail to further teach or suggest:

each of the dummy memory cells being provided for every fixed set of the memory cells, wherein each of the dummy cells includes:

a dummy access gate ..., and

a plurality of dummy magnetic storage portions ...,

each of the dummy magnetic storage portions includes:

a third magnetic layer magnetized in a fixed direction,

a fourth magnetic layer magnetized either in the same direction, or in a opposite direction to that of the third magnetic layer, and

a second insulating film formed between the third and fourth magnetic layers, and

each of the dummy magnetic storage portions is connected in series with at least another one of the plurality of dummy magnetic storage portions.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly Pham, whose telephone number is 703-305-4862, and will be **571-272-1793** as of 01/08/2004 due to the Office relocation. The examiner can normally be reached on Monday – Friday from 8:30am to 5:00pm, alternate Friday off. The examiner's supervisor, David Nelms, can be reached at 703-308-4910, **571-272-1787** as of 01/08/2004. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Ly Pham



December 22, 2003